Traditional as Radical

An essay that considers the traditional methodologies of making as a model for contemporary sustainable design.

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Contents.

Introduction.

"The great, and I presume — good, White Chief sends us word that he wishes to buy our land but is willing to allow us enough to live comfortably."[1]

This speech was delivered in 1854 by Chief Seattle, a Native American Chief, as a reply to the US president after a request from Washington to buy land from the Native American people. The speech describes the Native American attitude towards the Earth; the belief that their people are a part of the land in both life and death, and is a strong example of Native American "Earth Stewardship"[2]. The following text is taken from the original notes transcribed by Dr Henry A. Smith.

"To us the ashes of our ancestors are sacred and their resting place is hallowed ground. You wander far from the graves of your ancestors and seemingly without regret. Your religion was written upon tablets of stone by the iron finger of your God so that you could not forget. The Red Man could never comprehend or remember it. Our religion is the traditions of our ancestors — the dreams of our old men, given them in solemn hours of the night by the Great Spirit; and the visions of our sachems, and is written in the hearts of our people...

…Your dead cease to love you and the land of their nativity as soon as they pass the portals of the tomb and wander away beyond the stars. They are soon forgotten and never return. Our dead never forget this beautiful world that gave them being. They still love its verdant valleys, its murmuring rivers, its magnificent mountains, sequestered vales and verdant lined lakes and bays, and ever yearn in tender fond affection over the lonely hearted living, and often return from the happy hunting ground to visit, guide, console, and comfort them."[3]

This strong connection with the land provides a harmonious existence between the Native American people and their natural environment. It is more than simply soil, water or plants, it is all sacred.

"Every part of this soil is sacred in the estimation of my people. Every hillside, every valley, every plain and grove, has been hallowed by some sad or happy event in days long vanished. Even the rocks, which seem to be dumb and dead as the swelter in the sun along the silent shore, thrill with memories of stirring events connected with the lives of my people, and the very dust upon which you now stand responds more lovingly to their footsteps than yours, because it is rich with the blood of our ancestors, and our bare feet are conscious of the sympathetic touch."[4]

Although this letter was written a century and a half ago, I believe its message could be applied when thinking about the problems we face today regarding our future on this planet.

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This essay examines the idea that attitudes and approaches of past generations and cultures can be used as a model for thinking about a more environmentally sustainable future. It proposes that objects should be more engaging with consumers in order to avoid premature disposal; that making and handwork should be an essential part of the design process; and champions the traditional or ancient relationship with our planet, and the things on it, as a paradigm for modern thinking.

I have titled this essay *Traditional as Radical* because I believe there are many solutions to be found by looking back at how things were once done. Advances in technology are, of course, essential to our development as a society but there is much that we can draw from past practices and rich heritage of inventiveness, creativity, ingenuity, and respect for our environment. For clarity, when referring to 'traditional' design I also include ancient or atavistic practices of making, while

appreciating that 'design' could be a contentious word to use referring to prehistoric objects as those artefacts weren't formally *designed*.

In my reference to 'traditional', I refer to the time when humans lived on this earth in a way that was more or less sustainable, i.e. where humans replenished and managed resources, valued objects, and waste didn't exist as it does today. I don't look back in a romantic and misguided manner at pre-capitalist society, I recognise our improvement in general quality of life and prosperity, but I believe there is much to be learned from the balance between man and nature, and that balance should be upheld as an aim for shaping our future.

Similarly, 'radical' needs some defining, I do not necessarily mean radical in appearance, although in some cases it may be appropriate, but radical in ideology. I feel that radical changes need to happen within the consumer's perception of, and relationship with, products and objects and so it is incumbent on designers to begin the process of change in perception with renewed thinking behind the products they conceive.

The scope of this essay is not to investigate areas of 'eco design' such as recycling, new material technology, renewable energy sources or design for disassembly in any substantial depth, although these subjects are touched upon, and are recognised as being of importance. Rather, it looks to explore the potential of re-drawing our aesthetic landscape with the ultimate objective of slowing down rates of consumption by exploring our engagement with objects. I also do not propose to explore economic or political systems, or debates about climate change, although these will be briefly dealt with as they are of significance. I am more concerned with provoking a re-evaluation of our material culture, and questioning how it is conceived by designers, and perceived by consumers.

In chapter four I suggest ways of implementing the theory as a challenge to designers, but the ideas presented do not claim to provide an absolute solution. It is not possible to predict how a sustainable future may manifest itself, we can

be fairly certain that it won't come from a single book, product, essay, designer, or idea; however, in order to achieve a more sustainable future we need to think creatively, share ideas, debate, and criticise to collectively reach that goal.

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According to the Brundtland Commission, sustainable development: 'meets the needs of the present without compromising ability of future generations to meet their own needs'[5]. To achieve this aim we should make significant reductions to the quantities of resources we consume, and the quantities of waste we are polluting our planet with. The Intergovernmental Panel on Climate Change (IPCC) reports that our Global Greenhouse Gas (GHG) emissions increased by 70% between 1970 and 2004, with 24% of that increase occurring between 1990 and 2004[6]. It also estimates that with increasing rates of consumption the earth's fossil fuels are likely to run out in the next 30-40 years[7]. These commonly used figures are staggering and, aside from not being able to condense the scale of the problem into a paragraph or two, presenting the problem in a scientific or mathematical form can be unhelpful as it can lead to disengagement. So this essay is written under the generally accepted premise that there *is* an environmental problem, and shall not bombard the reader with further validating facts to this matter.

In arguing that consumption must be slowed I am drawn into a discussion of economic systems; specifically our current world-system – capitalism. I am persuaded by the arguments that capitalism is running out of steam, and it must either evolve or it will find itself replaced; Immanuel Wallerstein has written some interesting papers on this subject. In *Ecology and Capitalist Costs of Production: No Exit*[8], Wallerstein argues strongly that there is 'no exit [from eventual ecological disaster] within the framework of the existing system.'[9] The

essential nature of capitalism is that it must exploit someone, or something, in order to achieve its main aim – maximising profit. However, due to the global deruralisation of people, increasing labour costs are squeezing one end of capitalism's profits, and increasing scarcity of the earth's resources are pressing the other, and neither are likely to become cheaper, nor more easily exploited. By this argument Wallerstein finds that there is 'no exit', and I tend to agree. Therefore my perspective in this essay is one that assumes that the world system cannot continue to exist in its current form, and must either evolve, or be replaced by a new system. Many commentators predict that this will become a core political debate over the next 25-50 years.

After the disappointment of the Copenhagen Climate Change Conference of 2009, a solution cannot be left to governments to find alone. Our massive demands on this planet's resources are because consumers continue to consume, but I am not alone in believing that designers, who conceive these consumer goods, should take responsibility too. Design combines creativity with utility, is the precursor to manufactured things, and has huge potential to make a difference; perhaps it is through our artefacts that a solution to our world-system can be found.

[1] www.chiefseattle.com/history/chiefseattle/speech

[2] www.pantheist.net/society/truth_of_chief_seattle.html
[3] www.chiefseattle.com/history/chiefseattle/speech
[4] ibid
[5] www.un.org/documents/ga/res/42/ares42-187.htm
[6] www.ipcc.ch
[7] ibid
[8] Wallerstein, I (1997) *Ecology and Capitalist Costs of Production.*
[9] ibid

Chapter One.

Books of Significance.

The arguments presented in this essay have been formed through a Masters degree exploring sustainable design. There are many books, essays and papers written on sustainable design, with varying ideas, but I have been most influenced by four particular publications since 2005, which form the premise of this essay. Two books cover sustainable design quite directly, and two examine making. The common theme running through all four books is an investigation of the level of our engagement (or lack of engagement), with our material world. This disconnect with material things is a modern phenomenon and, I believe, some answers may be found in our past practices when seeking a sustainable future.

Emotionally Durable Design – Objects, Experiences & Empathy by Jonathan Chapman is the first book I'd like to introduce. The author is a Senior Lecturer at the University of Brighton, and founder sustainable design and research company Safehouse Creative. Essentially, the book explains that our entire material culture needs to be re-examined on a holistic level and at the core of this we need to slow down rates of consumption. Chapman likens the current approach of sustainable development to Western medical practice, an approach that is symptom based. 'Many healthcare professionals candidly admit that Western medical practice is frequently more concerned with the suppression of undesirable symptoms than with the actual restoration of health *per se*.'[10] Chapman argues that temporarily curing the symptoms of our environmental problems does not solve the more serious long-term damage caused by our attitudes and recycling is cited as one such short-term symptom-curer 'recycling alone is not a one-stop solution to sustainable production and consumption; it

represents only a small part of a wider picture'[11]. Further, he argues that recycling 'provides an ethical 'get out of jail free card''[12] and goes on to say 'Meanwhile, consumers continue wastefully on, but do so, now, with recycled materials instead of virgin ones.'[13]

Chapman looks at this subject very broadly, he goes into extensive detail in places, and often quotes philosophers, anthropologists and scientists to enforce his arguments. He explains that the lack of philosophical thinking in 'green' design is largely to blame for the lack of actual progress in terms of moving towards a more sustainable material culture.

The premise of his book is to consider how things might be improved simply by elongating the lifespan of products – not necessarily in their physical sense (many plastic objects physically last far longer than they need to), but in terms of the lifespan of empathy with their user. Chapman explains; 'Landfills around the globe swell with fully functional appliances'[14] and says that many objects end up in landfill sites because they fail to 'sustain empathy with their users'[15]. He examines our obsession with objects, and why they hold such significance to us. Our insatiable desire for the acquisition of things is explained as not a desire for matter, but for meaning – 'the consumption of material artefacts is largely motivated by the need to designate one's own particular being – matter serves to illustrate our values, beliefs and choices as an individual'[16]. Evidencing our desire for meaning in objects, Chapman draws from history to show that we have always had an active interest in creating and developing a material culture. He cites a cave in Kenya *Enkapune Ya Muto* in which archaeologists found beads which date back 40,000 years – 'An unknown Stone Age artisan spent hours crafting these decorations rather than searching for food, tending children or making tools'[17] We can assume that these beads were used as objects of displaying status. These status objects have become far more transient and less meaningful in the last few hundred years, and Chapman encourages us to look at how we can re-engage with our material culture and consume objects that don't outlive our desire for them.

The Case for Working with Your Hands by Matthew Crawford is a bestselling book which encourages us to re-evaluate the way we think about practical work. Crawford has a PhD in political philosophy, but also runs a motorcycle repair shop called Shockoe Moto. In the same way that Crawford is both a philosopher and a mechanic by occupation, his book combines thinking and making as they are, as he argues, interconnected. He often reminds us that he's a motorcycle mechanic whilst employing occasional colourful language, but the content of the book is very ruminative. The book has been written without a break in engagement from practical work; there is no uncertainty of the credence of the author's understanding of handwork, and the inherent frustrations – 'Just today, for example, before sitting down to write, I was faced with a mangled screw frozen in a cylinder head.'[18] You can almost imagine his computer keyboard to be grubby and grey with engrained motorcycle grease. Crawford refers to his work as a 'trade' rather than a craft 'to emphasise the everyday nature of my subject'[19]. He attempts to avoid romanticism and highlights the frustration and pain so often involved with handwork, but always returns to notions of loyalty and love of objects and work, at one stage he speaks of his 'metaphysical responsibility to the bike itself'[20] about a bike that he doesn't consider to be particularly special.

The book investigates the roots of a widespread disconnection with *things* in Western society, and criticises 'post-industrial' capitalism, where 'the knowledge economy' aims to push school children into office work, away from practical jobs. Crawford opens the book with 'The disappearance of tools from our common education is the first step toward a wider ignorance of the world of artefacts we inhabit.'[21]

Crawford also examines the social implications of work, both hands-on and office. He criticises the way office work distorts social engagement between colleagues, and praises 'site work' for its frank and direct communication methods, which he argues are much more useful for exchanging information on

how to get a job done. 'There is a real freedom of speech on a job site, which reverberates outward and sustains a wider liberality.'[22]

The book exudes a sense of fulfilment and nourishment in making and engaging with objects. Crawford admits to earn substantially less money running Shockoe Moto than he otherwise could, but is happy doing so.

The Craftsman by Richard Sennett opens by referencing a question asked to the author about the book "What is your guiding intuition?" – Sennett responds "Making is thinking." First published in 2008, this book is regarded as one of the most significant writings about making in recent years. Sennett is a revered sociologist and has written many titles on human behaviour. He is also an active musician, and by his definition he is therefore a craftsman and can claim an understanding of 'the desire to do a job well for its own sake'[23]. Using this broad definition of the word 'craft', Sennett examines many craftsmen; a medieval goldsmith, a National Health Service (NHS) nurse, Soviet builders, and some in depth Benvenuto Cellini and Antonio Stradivari, both famous craftsmen of their time. This wide ranging, yet in depth study of various crafts gives an excellent academic perspective on handwork.

He studies the historical and social heritage of craft, detailing the relationship between a Master goldsmith and his apprentice in a medieval workshop, and cites Stradivari's violin workshop to explain tacit knowledge – information or knowledge that cannot be written down or described using words. As in *The Case For Working With You Hands,* the social exchanges that occur in practical work are considered important, and greatly contribute to the general fulfilment found in handwork.

A portion of Sennett's book is spent discussing the Victorian art critic and writer John Ruskin, one of the pioneers of the Arts and Crafts Movement, who called for a resurgence of hand-made things as the high-output factories of the Industrial Revolution churned out objects that he considered to be ugly and abhorrent. Sennett devotes ten pages of brilliantly descriptive and succinct text to Ruskin,

and clearly admires his ideas and energy. He summarises Ruskin's 'Seven Lamps', which were 'for the troubled craftsman, guides for anyone who works directly on material things'[24], and relates them to his own argument – '"the lamp of sacrifice," which Ruskin means, as I do, the willingness to do something well for *its* own sake, dedication;'. Ruskin's principles are echoed in the title of this essay, consider the *Traditional* as *Radical.* As Sennett puts it 'As a vein of radical thought, Ruskin refuses the present, looks backward in order to look forward.'[25] His ideas and work have long been an inspiration to artists, designers, architects, craftsmen and creative commentators, and he sowed the seeds for many ideas that are still widely discussed today.

Sennett beautifully describes craftsmanship and skilled work as a noble and honourable endeavour, and persuasively argues that we are very capable of handwork, and should find pleasure in working with our hands.

Sustainable By Design – Explorations in Theory and Practice by Stuart Walker is by far the most radical book that I have read on sustainable design. It calls for dramatic changes in the way we design products, and is scornful of 'bland, market-led, 'safe' solutions.'[26] Walker is an academic, currently visiting professor at Kingston University and lecturing at Lancaster Institute for the Contemporary Arts, with a background in industrial design and engineering. His approach to sustainable design is to completely re-evaluate the way we go about designing, encouraging 'the rejection of both convention and aesthetics'[27] (in the rejection of aesthetics, Walker is referring to the preoccupation with aesthetics over other factors when designing a new object). He argues that reaching a more sustainable lifestyle will require continual experimentation by designers, without the prejudice of conventional ideas. 'For original thinking to flourish in design, we must value and nurture the unfamiliar, the atypical and even the perplexing, in addition to technical competency and design proficiency.'[28] He is almost scientific in his approach, using bar charts and graphs in his explanation of technical terms, and he provides images of unusual looking products that embody his theories.

The core of this book suggests that in reducing the readiness with which consumers dispose of their possessions, a more sustainable future can be achieved. Walker specifies various ways of reducing the disposal of objects, and the essence of his argument is that we need to develop a more 'meaningful' material culture. He explains that by having an inherent meaningful value, objects are not prone to disposal in the way that so many consumer goods are today. 'A sustainable solution can be understood as one that possesses enduring value in terms of its meanings and characteristics.'[29]

Walker suggests a number of ideas which could lead to a more meaningful material culture, including looking at objects that have been valued throughout history. 'When objects have been produced over such long periods, spanning diverse cultures, languages and understandings, then we can be sure there are lessons to be learned from them about our relationships with material things and our contemporary efforts to tackle sustainable issues in design and manufacturing.'[30] Also he insists objects should have some cultural context or significance – perhaps reflect a cultural heritage, something which is not achievable with goods that have been designed for a global market. This leads Walker on to ideas about provenance and local manufacture, both which link in to my arguments later. Although this book is radical in its approach, it asks us to consider many traditional ideas, and use them as a vehicle of exploration in looking for a more sustainable future.

[10] Chapman, J. (2005) *Emotionally Durable Design*. pp9
[11] ibid pp 10
[12] ibid
[13] ibid pp 9
[14] ibid pp 20
[15] ibid
[16] ibid pp 41

[17] ibid pp 58
[18] Crawford, M. (2011) *The Case for Working With Your Hands*, pp 203
[19] ibid, pp 6
[20] ibid, pp 117
[21] ibid, pp 1
[22] ibid, pp 157
[23] Sennett, R. (2009) *The Craftsman,* pp 9
[24] ibid, pp 114
[25] ibid
[26] Walker, S. (2005) *Sustainable by Design,* pp 7
[27] ibid, pp 10
[28] ibid, pp 9
[29] ibid, pp 39
[30] ibid

Chapter Two.

Design As a Solution.

It is important to highlight that consumption is inextricably linked with waste. Waste is the thing that is polluting our natural environment, and is considered ecologically a greater problem than the draining of resources. The average consumer does not see the impact of their waste, few people will visit their local land-fill site for example, and so it is difficult for consumers to really appreciate the impact their consumption has. Whether intentionally or not, 'out of sight, out of mind' slips into most people's attitudes towards the disposal of their objects. In her book *Waste and Consumption,* Simonetta Falasca-Zamponi asks the reader to 'imagine yourself surrounded by all the objects you have been given or bought ever since you were born'[31], which is a mind-boggling exercise that demonstrates not only how much we actually may have consumed as an individual, but also our ability to forget about the goods we've discarded, that still exist somewhere, in some form.

It could be reasonably argued that consumers make choices about what they buy, and are therefore also responsible for the things they throw away. So a simple solution to stem our environmental ills is to simply ask consumers to consume less. However, the consumer's ability to put their waste 'out of mind', along with other factors, makes this difficult to implement.

An alternative way to tackle waste is to place some of the responsibility in the hands of designers, who conceive the products that ultimately end up in landfill sites. In this essay I directly appeal to designers to consider their work in the context of its impact beyond the consumer. I am confident this level of consideration is within the abilities of most designers today.

To tackle consumption, we should perhaps understand *why* we enjoy consuming objects so much. In *Spent: Sex, Evolution, and the Secrets of Consumerism* by Geoffrey Miller, consumer behaviour is explained through anthropology and biology, specifically evolutionary psychology. He explains that the motivation behind much of our buying behaviour lies in innate urges to display our social status and to differentiate ourselves from our neighbours. 'Today we ornament ourselves with goods and services more to make an impression on other people's minds than to enjoy owning a chunk of matter'[32]. This is of course a simplification of the subject, there are other cultural factors as to why we consume and enjoy objects, but the fundamental reasons behind the desire for object acquisition are well explained through evolutionary psychology.

The key to understanding this explanation is that more often than not our motivations are subconscious, coming from our innate, well-reinforced subliminal urges as animals, which centre around the promotion of ourselves to friends, family, and potential mates. In anthropology, the term used to explain consumer behaviour, particularly this type of conspicuous consumption, is 'Consumer Narcissism'. Miller explains; 'Narcissism is thus love of one's external image as it would be loved by another'[33]. Only about 1% of humans are prone to truly narcissistic behaviour, recognised by psychologists as a personality disorder,[34] 'Yet the capacity for narcissism, under certain conditions, seems present in most ordinary humans.' [35] This narcissistic capacity and the preoccupation with how the world might perceive us can manifest itself in the over-consumption of status objects. 'Runaway consumerism works largely through creating these conditions and tapping this capacity'[36]. Further evidence to this idea is the way in which marketing successfully appeals to our narcissistic side – we long to be driving that car, have skin that smooth, be seen in those clothes etc. 'Advertisements for most products converge on one key message: other people will care deeply what products we buy, display, and use.[37]

There is another environmentally problematic form of self-importance, commonly occurring in humans and causing behavioural problems. –

anthropocentrism. Anthropocentrism is the idea that humans tend to believe that they are the most important entities in the universe. Most humans are guilty of anthropocentric thought, believing it's okay to plunder the earth's resources and dump waste where they wish. It's only in recent years that we've begun to recognise that we in fact aren't the centre of the universe, rather a speck in its vastness, and history isn't only measured in thousands of years, but millions. Images such as the Hubble Deep Field of 1995, and fossils of trilobites serve as mind-blowing reminders of how insignificant we actually are, but we too quickly forget about the larger picture. Jonathan Chapman puts it rather amusingly in his book *Emotionally Durable Design* 'The way in which we perceive our own supremacy as a species can be further demonstrated via the common assumption that if aliens came to this planet, they would, of course, want to make contact and study with humans. Would they really? They may be far more interested in sand, turnips or grasshopper wings.'[38] Chief Seattle, the author of the extract at the opening of this essay, could not be accused of anthropocentrism. He is inextricably connected to the environment, not a separate entity; if we could view the world a little more like him and his people, perhaps we would have a more fulfilling and ecologically balanced life.

Narcissistic and anthropocentric behaviour are linked with individualism and egocentrism, and appear relatively commonplace in modern society in the developed world. Want and desire are the main driving force of the selfish human, and these hollow emotions can lead to disappointment. The narcissist typically doesn't seek meaningful relationships with other humans in communities or with our natural world, but with quick fix, modern, sometimes hedonistic behaviour such as binge drinking, or retail therapy. Jonathan Chapman states 'The 20th Century witnessed a steady societal migration away from deep communal values toward a fast-food culture of nomadic individualism and excessive materialism.'[39] He goes on to say 'a significant shift occurred from inter-human relationships toward a contemporary mode of individuality fragmented over countless relationships with designed experiences. This epoch-making societal transition has cast us within an abstract version of reality in

which empathy and meaning are sought from toasters, mobile phones and other fabricated experiences. Today, empathy is consumed not so much from each other, but through fleeting embraces with designed objects.'[40] He goes on to say 'As experience-hungry users, we are constantly topping up these relationships with newer, and ever more diverse, things. This behavioural pattern begins to explain the current exudation of waste.'[41]

Consumers are not, however, a homogenous entity, there are a growing number of consumers that *are* concerned about what they purchase and throw away, and would appreciate a greater range of products that can allow them to enjoy objects without the responsibility of causing environmental decay. Consumer markets recognise this too, and there is a growing market of 'eco' or 'green' products – with varying actual ecological credentials. Chapman states that 'Research carried out by ES Magazine [*London Evening Standard Magazine*] in 2000 shows that a massive 75 per cent of consumers claim to favour products with tangible environmental advantages over other competitive products.'[42] 'Three-quarters of the people polled in the UK say they would make a choice of products on a green or ethical basis, and 28 per cent say they actually have chosen or boycotted a product or company for ethical reasons in the last 12 months.'[43] 'ES Magazine then goes on to state that 86 per cent of British consumers say that they have a more positive image of a company if they see it doing something to make the world a better place.'[44]

There should be no doubt about design's ability to change society, the art and design movements of our recent past demonstrate this, each responding to the problems of their time through debate and discussion. Stuart Walker highlights the importance of disagreement in forming new ideas; 'dissonance is often and effective catalyst for action and change.'[45]

However, many of the current ideas about sustainable design are part of the previously cited symptom-based approach – recycling, upcycling, 'eco' material technology to name a few examples. Of course, these are sensible ideas, and shouldn't be discredited, but it is my belief that we need a more philosophical

approach to design to begin to tackle the vast issues facing our future on this planet, and indeed the same could be said for re-considering our world-system. The solution that both Chapman and Walker call for is to slow down our consumption rates, thus reducing our waste and demand on resources. I find that many of the arguments presented in this case can be conflated with the encouragement of hands-on engagement during the design process of an artefact.

I am not arguing that we should cease to consume and turn to a life of asceticism – to simply not consume contradicts our most fundamental urges, and indeed in many senses consumption represents freedom of expression. A sustainable future shouldn't represent the sacrifice of objects, or object enjoyment, just a change in our perception of objects, and a positive change in the relationships we have with them. As Chapman and Gant claim in *Designers, Visionaries and Other Stories* 'this knee-jerk response to the problems we face flies in the face of our deep motivations as a species – to create, to produce, and to consume.'[46] Designers need to provide consumers with a more meaningful way in which they can consume, finding the same pleasure from our material culture, but with less of an impact on our environment.

* * *

It is important to understand the basis of the aesthetic landscape that Walker and Chapman encourage. Of course it is not possible to condense these books into this essay, but I can convey the essence of the solutions suggested by Walker and Chapman in their books, with the caveat that these books don't claim to be absolute solutions. Looking back to lower consumption rates is a strong start on this journey to finding a solution, and these books can at the very least open up the debate.

The primary objective must be to challenge our preconceptions of aesthetics 'which, in contemporary product design, are closely linked with notions of newness'[47]. In a chapter entitled *Rethinking Material Culture*, Stuart Walker states 'The dominance of fashion-orientated, essentially trivial aesthetic definitions suggests a barrenness of thinking, a relinquishment of creativity, and a replacement of originality with bland, market-led, 'safe' solutions.'[48] Which he claims 'prevents industrial design from evolving into an authentic, substantive discipline capable of effectively tackling the important issues of our time'[49]. There is discontent with a current obsession with technological modernity in the design process, and both books encourage a more philosophical, experiential, and poetic approach to product innovation.

A common thread between the two books is the embedding of narrative in an object; this doesn't have to be obvious or literal narrative, but something that the user can engage with and form an attachment to. 'Essentially, consumers acquire meanings, not objects; objects simply provide a way or perceiving the meaning.'[50] Walker and Chapman encourage designers to consider their products as a blank canvas, allowing the user to add their own meaning, Chapman says 'always perceive the user more as a co-producer of the narrative, rather than just a passive observer.'[51] Implementing meaning or narrative isn't about covering a product in nostalgic imagery, or posing deeply provoking questions like an art object, it's about allowing the consumer to develop their own narrative, however small, with the object.

Creating narrative is only useful if it can be sustained. 'Growing old Gracefully'[52], Chapman claims, is of the utmost importance if we wish to address the fundamental principle of longevity, and product durability. 'Anticipate the ageing process of objects'[53] he explains, asking designers to consider that their products will inevitably age and this outlook should not necessarily prompt disposal of that artefact. Walker takes this idea to some depth in a section of his book entitled *Aesthetic Longevity and 'Surface'* in which he says 'The lack of opportunity afforded by the material to maintain or repair the surface can compound this

sense of discontent'[54]. Similarly, when discussing the form that many consumer goods take today, Chapman is scornful of their smooth, shiny, plastic exteriors and perfectly rounded corners and edges, 'In designing perfection, you also design an unstable and highly vulnerable relationship between subject and object.'[55] Both books promote the solution of allowing products to accommodate wear, or patina, as a potential way of embedding narrative. 'Patina writes narrative into both the semiotic make-up and aggregate semantic of material experiences.'[56] Walker agrees on these points, 'A product which bears the marks of time and use and its own history could, potentially, have a richness lacking in many of today's squeaky-clean but rather barren products'.[57] A cited example is a pair of denim jeans[58], which become more and more 'owned' as they are worn, fading, wearing, and stretching in the parts that fit the owner's body.

Walker also addresses local production. This isn't for the conventional reason of reducing transportation, but for reasons of local cultural heritage. Designing a product that fits into a local cultural heritage is more likely to resonate with people on a deeper level. Many consumables are designed for today's global market, which presents a problem of cultural blandness. When explaining local production, Walker claims it 'allows products to be adapted to local needs and to reflect local or regional aesthetic preferences. This, in turn, contributes to cultural and community identity – 'community' being an important aspect of sustainability.'[59]

Both books highlight the problems with consumer goods that promise so much, and rapidly disappoint by not fulfilling the expectation. Chapman states 'Disappointment may be characterised by a real-time imbalance between expectation and reality.'[60] There are ways to avoid disappointment; an obvious solution is not to promise more than a product can provide, as well as 'Keep[ing] the magic alive'[61] – 'if a product relinquishes all meaning in a single fleeting glance – experientially – consumers have nowhere left to go.'[62] Brightly coloured, loud objects that initially might appeal to the eye may become visually grating, and ultimately lead to dissatisfaction.

In addition, concealing parts of an object engenders detachment, which Walker refers to as a 'barrier to product comprehension.' 'It not only hampers product repair, it can also contribute to a lack of resonance with, and attachment to, our material possessions.'[63] He goes further in suggesting that many of these complex or, what are currently considered, unsightly parts should be displayed, providing aesthetic interest and visual texture.

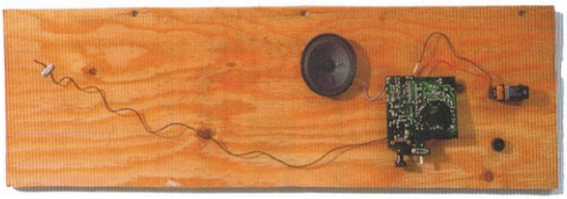

Figure 1 – Unadorned Radio by Stuart Walker showing circuitry.

Both authors are scornful of fashion and style and present coherent arguments that suggest that style, by its very nature, seeks to render an object aesthetically obsolete within a short period of time from its creation. Designers should avoid adhering to style at all costs. 'Style can impair an object's durability because it inevitably becomes unfashionable'[64], Walker claims. In re-writing the aesthetic landscape and creating more meaningful embraces with artefacts, the heavily stylised approach to design will be essentially eliminated.

There are a number of practical suggestions that the books make that should be considered in the actual manufacturing of the products. Walker encourages us to consider working with a limited pallet of materials and components he praises the 'Inventiveness of necessity and spontaneity'[65]. He also suggests that objects should utilise standardised components, which can be easily and readily replaced if they break. He argues for a consideration of the scales of production – while objects should be made locally on a small scale, many components can be standardised and mass manufactured and subsequently used within these objects. Walker suggests that these objects should also be made using basic tools, and basic skills, so repairs can be easily carried out.[66] *Figures 1* and *2* show products developed by Walker that demonstrate his ideas.

The books give a sense of how different our world would be with a reformed material culture. The arguments for more meaningful engagements with objects are most compelling, and seem the best solution at present to our environmental problems. To fully adopt the ideas presented by Walker and Chapman, our current model of capitalism has to change. Whether you are a proponent of capitalism or not, we can begin to implement many of these ideas now and start to alter notions of product beauty, if not initially in mainstream products, then at the very least in the realm of experimental design.

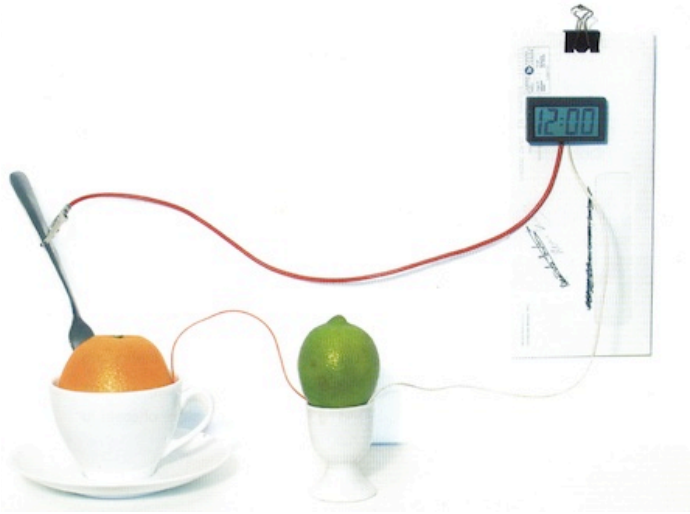

Figure 2 – Off-the-Shelf Clock by Stuart Walker. This image appears on the cover of his book and is a representation of his most advanced ideas of product beauty.

[31] Falasca-Zamponi, S. (2011) *Waste and Consumption,* pp 14
[32] Miller, G. (2009) *Spent,* pp 1
[33] ibid, pp 52-53
[34] ibid, pp 54
[35] ibid
[36] ibid
[37] ibid, pp 76
[38] Chapman, J. (2005) *Emotionally Durable Design*, pp 22
[39] ibid, pp 18
[40] ibid
[41] ibid, pp 19
[42] ibid, pp 7
[43] ES Magazine, September 2000.
[44] Chapman, J. (2005) *Emotionally Durable Design*, pp 7
[45] Sus by Des pp2
[46] Chapman and Gant. (2007) Designers, Visionaries and other Stories
[47] Walker, S. (2005) *Sustainable by Design,* pp81
[48] ibid, pp 7
[49] ibid, pp 8
[50] Chapman, J. (2005) *Emotionally Durable Design*, pp 55
[51] ibid, pp 136
[52] ibid, pp 128
[53] ibid, pp 136
[54] Walker, S. (2005) *Sustainable by Design,* pp 87
[55] Chapman, J. (2005) *Emotionally Durable Design*, pp 131
[56] ibid, pp 131
[57] Walker, S. (2005) *Sustainable by Design,* pp 81
[58] Chapman, J. (2005) *Emotionally Durable Design*, pp 113
[59] Walker, S. (2005) *Sustainable by Design,* pp 81
[60] Chapman, J. (2005) *Emotionally Durable Design*, pp 80
[61] ibid, pp 56
[62] ibid, pp 56
[63] Walker, S. (2005) *Sustainable by Design,* pp 117
[64] ibid, pp 125
[65] ibid, pp 84
[66] ibid, pp 89

Chapter Three.

Making Matters.

'It is by having hands that man is the most intelligent of animals' – Anaxagoras.

Humans can be defined as creatures with the ability to make objects. No other organism on this planet has the mental or physical dexterity to create the things that we can, and as a result we have evolved to appreciate made things. Most cultures have a strong heritage of crafts of some description, but in many modern Western cultures, the value of making and handcraft has been gradually decreasing.

In his book, *The Craftsman*, Sennett argues that we are all capable of becoming craftsmen. He admits this is a controversial statement, but likens the learning of craftsmanship to the learning of play as a child – 'the rhythm and routine in craftsmanship draws on childhood experience of play, and almost all children can play well.'[67] I think there is something significant in Sennett's argument that we all possess the capabilities of craftsmanship. Perhaps this goes some way to explaining why we like made things so much; our ability as a species is present in made objects. Not all humans have the time to become skilled with their hands, but perhaps most humans appreciate things that demonstrate our potential. Tool shops and catalogues can serve as places of fascination for many people, regardless of whether they have a regular use for the tools within it. People vest a kind of reflected glory in many objects, and in some cases an understanding that they may be capable of producing a similar artefact if given the time and practice.

Our ability to make has been scientifically analysed, as Sennett begins to explain. In a chapter entitled *The Hand*, Sennett explores the evolution of that defining part of the human anatomy and investigates its significance. He starts by establishing that grip plays an essential role in the development of our species. There are three types of grip that allow us to use our hands to create, the first is pinching between thumb and finger, the second is cradling in the palm using the thumb and fingers to push an object around in the palm, and the third is a cupping grip, which allows us to hold an object while working it with the other. 'Once an animal like ourselves can grip well in these three ways, cultural evolution takes over[68], explains Sennett. He then goes on to explain the way that when using tools, we feel them as an extension of our limbs, and quotes Michael Polanyi "When we bring down the hammer we do not feel that its handle has struck our palm but that the head has struck the nail."[69] The idea that we 'become the thing on which we are working'[70], combined with our universal possession of those three types of grip are further testament to our strong abilities as a species to create objects.

Making doesn't just fit our development as a species in the sense that we can develop tools for progression, but making serves our species as a social endeavour. Both Sennett and Crawford speak of the importance of the social aspect of craftsmanship, and Sennett in particular details a medieval goldsmith's workshop - 'Goldsmithing is perhaps most revealing in what it tells us about the workshop conceived as a craftsman's home – a place that unites family and labor.'[71] He explains that a Master would stand in as a father figure to an apprentice, and they would all live in the workshop. Sennett considers these strong social ties equally as important today as they were then. When talking about NHS nurses today he says, 'The craftsman must be patient, eschewing quick fixes. Good work of this sort tends to focus on relationships.'[72] He emphasises the importance of the workshop in sharing information through tacit knowledge - as he describes 'unspoken and uncodified words, that occurred there and became a matter of habit, the thousand little everyday moves that add up in sum to a practice'[73]. The case study he uses to explain this is Antonio

Stradivari; a violin maker considered a genius, who made instruments that create a sound that cannot be replicated today. Stradivari had many apprentices and journeymen in his workshop, but chose not to show them the complete process involved in creating a Stradivari Violin from start to finish. Today, despite advances in technology, an original Stradivari cannot be replicated - 'the professional musician can almost instantly distinguish between the original and a copy.'[74] The social implications of making are inextricably linked with tacit knowledge – without social contact, tacit knowledge ceases.

If we inherently enjoy objects and making, then one has to question why we have become so detached from our material culture. As explained in chapter two, consumers have become disconnected with their material world because of the objects that inhabit it, electronic gadgetry and goods that are culturally bland, alienating and disengaging. These products tend to distance us from them, and this is recognised by Matthew Crawford in his book *The Case For Working With Your Hands.* Crawford gives a rather detailed and specific example in a section entitled *On Lubrication: From Hand Pump to the Idiot Light, and Beyond*[75] in which he details the evolution of motor vehicles from early motorcycles upon which the rider had the important task of utilising a hand pump which 'discharged a small amount of oil into the crankcase'[76], to modern vehicles that simply warn you with a light when your car needs attention (from a specialised mechanic). Crawford observes, 'How far we have come from the hand oiling of early motorcycles is indicated by the fact that some of the current Mercedes models do not even have a dipstick.'[77] He goes on to make the point that the designed objects around us have gradually altered our relationship with them; setting us free from greasy rags and gritty fingernails, but making us dependent on a specialist to fix them when they inevitably have problems. In this change in our relationships with objects we find that we are distancing ourselves from artefacts and are not given an opportunity to bond with them in repair or maintenance. This is of huge significance as fixing or repairs can serve to combat the narcissism discussed in chapter two, which can be the primary cause of over consumption. Crawford claims 'the narcissist views everything as an extension of

his will, ...He is prone to magical thinking and delusions of omnipotence.'[78] Until – 'in contending with one that is broken, you have to ask what *it* needs.'[79] This being the case, what better cure than to ask the narcissist to consider something outside of their own self. 'To respond to the world justly, you have to see it clearly, and for this you have to get outside your own head.'[80]

Crawford also points a finger of blame for the disconnect with making on the dissolution of 'Shop Class'[81] which is the US equivalent of Design and Technology, taught in UK schools. Globally, governments have been encouraging a move towards a 'knowledge economy', with schools gradually devaluing practical subjects. In Britain the introduction of the National Curriculum has been blamed for a downturn in interest in Craft in education – 'in Britain there appears to be less sustained 'making' in art and design and technology since the introduction of the National Curriculum.'[82] Timetables were squeezed and technician support was reduced as funding to this section of education was reduced. The core reason for this decline in education is that 'good-quality craft education is expensive and complex to deliver.'[83] A UNESCO report published in 2005 recognises this global trend and calls for Secondary Education to bring the practical and knowledge based subjects back together. With reference to our current education systems that have a focus on higher education, the report states 'In such systems the acquisition of "knowledge" often remains distinct from the acquisition of "practical skills". A secondary education system that maintains the distinction between the two streams must certainly fail to maximize the effectiveness of its graduates when they take their place in societies'[84]. How much of this report has actually filtered through into education systems is difficult to measure.

It isn't just schools where hands on engagement has suffered, in my search for an undergraduate University course I wanted to specify making, and it appeared that at that time only two mainstream UK Universities taught as much as 50-50 split between design and making furniture. When speaking to many graduates at last year's *New Designers* exhibition in London, I learned that many of their

pieces had been made by technicians, not by the students, in some cases they preferred not to make, in many others they weren't allowed to.

There is strong evidence that suggests a resurgence in interest about making and craft amongst consumers, or at least consumers that take an interest in designed objects. Well established exhibitions such as *Collect* and *Origin* in London draw thousands of visitors who are actively consuming these hand-made and spectacularly crafted objects. This market of consumers who seek the top end of craft is quite small, but this interest is filtering into the mainstream. I visited a top furniture store in London called *Aram*, which sells large quantities of designer furniture to their discerning clientele, and managed to get an interview with their gallery curator. *Aram* isn't by any means cheap like *IKEA*, but its target market is wide, appealing to consumers that are interested in designed and manufactured goods for sale, mostly within the £100-£1000 bracket. Their recent exhibition, entitled *6 Hands* had been very popular with their customers. *6 Hands* took three designers and asked them to exhibit work in which they had a deep engagement with making or handwork. With reference to the customers, the curator claimed 'people were very interested in the skills and details present in the work'[85]. She also noted that form her own experience, 'Industrial designers now feel obliged to include 'craft' in their work.' The exhibition was hugely successful and ran for over a month. National institutions such as the *Victoria & Albert Museum* are recognising, or attempting to instigate, an increase in consumer interest in making with a large exhibition called *The Power of Making*, opening in September 2011 during the *London Design Festival*. The *Design Museum*'s annual *Brit Insurance* exhibition, which showcases new innovations in design, had eight products out of twenty-five in its *Home* section that alluded to, or directly cited making or craft as being of importance to the conception of the product. Consumers are apparently also interested in not only appreciating made objects, but in learning handwork too. There is an upsurge in knitting and crochet classes, since the 1990's 'the number of women under 45 who knit has doubled.'[86] And one of the UK's largest DIY stores, *B&Q*[87], is now offering its customers courses in

practical skills, which not only reflects this interest in handwork, but demonstrates that these people have not been previously taught.

The education system that failed to engage its students with making is, of course, not solely the cause of the environmental problems we face; consumerism and materialism were prevalent before governments promoted a knowledge economy. But with this lack of practical skills in our education system, are the current and future generations of adults going to be suitably equipped to get back in touch with their material world?

Traditional values in making have been overlooked for many years with a move towards a modern knowledge economy, but I believe that there is great value to be found in traditional methods of making. It is my contention that a deep engagement with handwork should be an aspirational benchmark for considering the relationships between consumers and objects. The years of practice, at the mercy of "disobedient" materials and tools, which are involved in becoming a craftsman can develop a person with a mind-set that truly appreciates and understands objects. Making does matter to humans, we take interest in things that are manufactured and show a human touch. In the next chapter I will suggest practical ways of utilising these attributes to develop more engaging objects.

[67] Sennett, R. (2009) *The Craftsman,* pp 268
[68] ibid, pp 151
[69] ibid, pp 174
[70] ibid
[71] ibid, pp 62
[72] ibid, pp 51
[73] ibid, pp 77
[74] ibid
[75] Crawford, M. (2011) *The Case for Working With Your Hands*, pp 58

[76] ibid, pp 58
[77] ibid, pp 61
[78] ibid, pp 16
[79] ibid
[80] ibid, pp 103
[81] ibid
[82] Hickman, R. (2004) *Art Education 11-18.*
[83] ibid
[84] UNESCO Secondary Education Reform. pp 5
[85] Interview with Ellie Parke, Aram Curator.
[86] Pearl-McPhee, S. (2008) *Yarn Harlot*
[87] www.diy.com/diy/youcandoit_classes/index.jsp

Chapter Four.

Traditional as Radical.

I would like to suggest a paradigm of designing that could produce the innovative thinking required for a move towards a more engaging and sustainable material culture. This is based on an understanding of the ideas of Walker and Chapman, combined with the traditional values in handwork and making, presented by Sennett and Crawford. I find the ideas that most resonated with my thinking were those that looked to past practices. Hence this section's title *Traditional as Radical*.

As established, one of the solutions to our environmental issues is to re-connect consumers with objects by adjusting their notions of product beauty, and offering the opportunity to value and appreciate artefacts differently. I strongly believe that to re-draw the aesthetic landscape through experimental design, designers need to engage with the objects they conceive, as well as their constituent materials, through making. This suggestion isn't just applicable to designers – if consumers have first hand experience of how things are made, indeed, how *difficult* it can be to make things, perhaps those things would become of greater value to them. Of course, this requires a balance between the manufacturing process in the object, and the consumer's ability to understand the manufacture. If too complex it will be alienating, but if within the consumer's field of understanding, it will be of interest, perhaps even awe and wonderment.

The following are principles that I have formulated about how to approach design for a more sustainable material culture. I start with proposals that should be considered before developing initial ideas, and progress through into ideas about materials, design details, and ideas about manufacturing. Although I

organise them in this way, the principles listed here can be applied in any order during the creative process.

In this section I include some images of my work, created within the MA project under which this essay is also submitted. The pieces started within the sphere of experimental design, and some have been developed as marketable objects; they take specific sections of ideas drawn from the books cited in this essay, combine them with my thoughts about good design, and time spent experimenting with these ideas, processes and materials in a workshop. Further details of these products and the project, which began as an exploration into the ancient craft of coppicing, can be found in Appendix A.

As explained in the introduction, no single idea or product will solve our environmental issues, but in debating and sharing ideas we can eventually hope to meet a more sustainable existence. I encourage designers to consider the following thoughts about how a product could be conceived, develop these ideas and share their improvements. Clearly this is not definitive, but serves to demonstrate my thoughts about the future of sustainability with the intention of advancing the debate.

* * *

Narrative Within an Object.

As Walker and Chapman argued, narrative is an important part of creating a relationship between a consumer and an object. This can be done in myriad ways, but a designer must exercise caution when injecting meaning into a product. It is easy to venture into rather kitsch design if the narrative is too direct. A recent article in ICON magazine[88] entitled 'False Memory Syndrome' correctly mocked designers who use garish nostalgic imagery in their work,

claiming that they wanted to connect with the user. Narrative can be used to convey a particular message but this should maintain subtlety, and not be too direct – a designer should use the product to be a platform upon which narrative can be built. Useful messages in a product might attempt to tackle anthropocentrism or narcissism, for example. However, over-defining the narrative is unlikely to have the desired effect; objects should be a blank canvas on which the user creates their own narrative.

Style-less Design.

Possibly the most important concept we should consider if we are to slow down consumption, is the elimination of our current ideas about *style*. Today, styles change in order to render products undesirable to consumers, making room for the next. This perpetuates our disengaged materialism and our ecological problems. Designers should be encouraged to draw their aesthetic inspiration from original sources, not regurgitating or ever so slightly adapting forms that already exist. If we look at traditional objects that have been designed without style, but more through necessity, perhaps we can find some aesthetic solutions that connect with notions of simple design. The way an object looks should be informed by the way a material responds to a process, or the way a person might react with an object, rather than lines or forms taken from another existing product. If we think about knapped flint hand-axes made by our ancient ancestors, simple early Japanese pots that you might now find in the British Museum, or traditional chairs made by a bodger, their beauty is in their style-less form, which is inherently timeless. As Walker quotes Oscar Wilde 'Fashion is merely a form of ugliness so unbearable that we are compelled to alter it every six months.'[89]

Honesty in Design and Construction.

John Ruskin was a pioneer of honest design; he claimed that the materials that make up an object, and the way that object is constructed, should be held on show. In his seminal book *The Seven Lamps of Architecture,* in reference to

details on a building, Ruskin says 'take care that it be as boldly and rudely wrought where it is well seen as where it is distant, so that the spectator may know exactly what it is, and what it is worth.'[90] The principle of honesty in construction, pioneered by Ruskin and the Arts and Crafts Movement, has been used by many subsequent designers and artists including members of the Bauhaus and Modernist movements. In his book, *The Craftsman,* Richard Sennett goes into some depth in examining the Baker House by Alvar Aalto, completed in 1949, which uses *honest* brickwork - in this instance the clay is baked and the bricks are used without sorting, giving a varied texture to the walls that is true to the processes used[91]. Showing the materials that an artefact consists of, or the construction can be of huge aesthetic importance. It gives the object integrity as it unashamedly displays it's constituent materials, which may include electronic components, thus preventing potential alienation from the object. It also can provide huge aesthetic interest, the inner workings of a clock can give hours of fascination. Similarly, electrical circuitry can have an organised beauty about it, and a set of well-cut dovetails in a drawer can be something to marvel at – whatever the detail, it has potential to be visually engaging if on show. See *Figure 3.*

Figure 3 – Detail of 'Suent' Superlight Chair by Sebastian Cox showing woven seat and visible joints.

Simplicity and Unobtrusiveness in form.

Many designers and design critics over the years have called for reduced ornamentation and simplified forms, and it has become a well established part of

the landscape of design. The revered designer Dieter Rams concludes his *Ten Principles for Good Design* with 'Good design should be as little design as possible.'[92] It is certainly the case that this principle could be taken into a more sustainable material culture, but it does require a specification. Very 'minimalist' design can result in objects that reveal very little about their make-up, their functions, or how they can be repaired. I would propose simple shapes in order to allow a more style-less form to emerge, and use the detail in the construction to provide the aesthetic and visual interest, as shown in *Figure 4***.** Simplicity done well can make some beautiful shapes, as with many design methodologies it is about finding a balance.

Figure 4 – 'Suent' Superlight Chairs by Sebastian Cox. Lightweight and unobtrusive.

Natural Materials.

Utilising what nature has to offer rather than man-made or synthetic materials seems an obvious approach to sustainable design. But here I don't necessarily mean using natural materials for this purpose. Plastics, and other modern materials, haven't been in our pallet of materials for very long. In its early life plastic was seen as a material of quality because it was at the cutting edge of technology. It has subsequently become more available and can now be seen as a sign of cheapness in many goods. Materials or textures that have been used for centuries such as leather, paper, glass, ceramics, wood, some metals, cotton etc. have a warmth and timelessness that we can engage with. It is also possible to create interesting surfaces using natural reactions such as rusting, encouraging

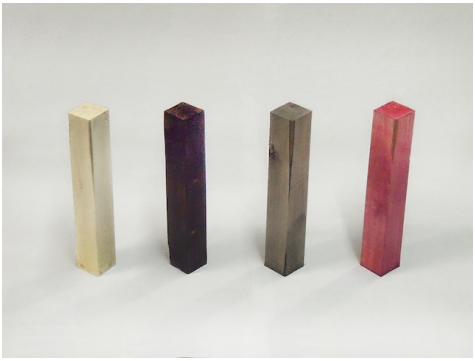

Figure 5 – Different hazel colour samples, (from left to right) plain, charred, vinegar and rust, and beetroot.

verdigris on copper, growing lichen on porous surfaces, or reacting iron with the natural tannins present in some woods. *Figure 5* shows different natural colours that can be achieved on wood using vinegar and rust, scorching, and beetroot. We have a natural fascination with these kinds of surfaces, and they can be used to generate aesthetic interest that has always been appealing to mankind.

Local Materials and Processes.

As with the principle of using natural materials, this isn't intended as a suggestion of carbon footprint reduction through limited transportation; although that is of course something that one should consider when thinking about sustainability. The use of local materials in this instance is intended to support, reinforce, or create, a local cultural heritage. Products that can adopt, or reflect a sense of the vernacular aesthetic, processes, practices, or materials are more likely to be valued by the people that have lived within that cultural heritage and therefore understand it. I personally enjoy observing the regional variation in methods of constructing medieval timber framed buildings in England, or the different patterns of billhook used by woodmen particular to each county, shown in *Figure 6.* Designers should become more aware of their traditional local

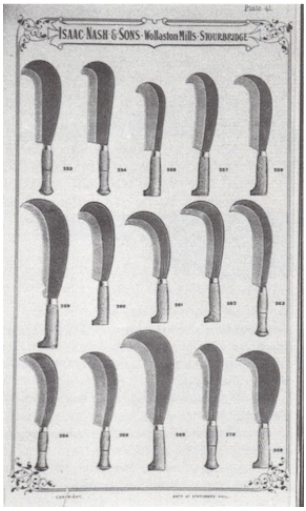

Figure 6 – Different regional patterns of billhook.

peculiarities and reflect them in their contemporary work to provide that important platform of engagement in their artefacts. Many products today are designed directly for the global market, and as a result are bland, failing to provide the opportunity for consumer engagement. 'In their design and production, products which exhibit such aesthetic neutrality often fail to respond to the particularities of place.'[93] It goes without saying that this must be done with subtlety – simply painting tartan patterns onto chairs made in Scotland is not what is being suggested. Learning a traditional local technique of some description is an excellent way to find inspiration for a new form, reinforce cultural heritage, and keep local skills and knowledge alive.

Respect for Materials

To create engaging objects, the designer should engage with the materials. Historically, materials were often harvested or processed by the people that subsequently worked with them; there was an inherent respect and understanding that developed in this stage. In my own work I looked at bodgers and woodmen, who used a process called coppicing to manage their crop and provide a yearly supply of their material. They engaged with their material by growing and harvesting it, and this level of husbandry and care was part of their livelihood. Modern designers should seek this level of understanding in order to create objects that may pass this on, and truly engage with consumers.

Detailing and Variety in Texture.

Simple forms may not be enough to provide sufficient levels of aesthetic interest. Visual stimulation can be achieved by detailing. This is based on Chapman's principle of 'Keep the magic alive.' Detail can be provided with the construction of the object honestly displayed, as suggested above, or with varied surface texture, as shown in *Figure 7* This can be created by the reaction of the material to different processes – staining the grain of piece of wood, boiling leather to give it hardness, or growing moss on a stone object. Delicate surface marks can also be used to add an interesting but subtle texture to an object, encouraging

the consumer to touch the object and interact with it. A variation of workmanship can provide detailed interest, smooth well tendered surfaces contrasted with quickly worked, rough surfaces can be appropriate. 'John Ruskin held that rough work allowed energy, vigour and the mark of our humanity to become manifest.' [94] As with all of these suggestions it is important to be as experimental as possible, and learn about the materials with which the product could be made.

Figure 7 – Kerf Panel by Sebastian Cox showing moss and bark.

The Production Line.

Designers should start to think about the current paradigm of product manufacture. Designers, by necessity, often aim to design a product that will be manufactured on a large scale. They may see as little as 3% Royalties[95] from a manufacturer and so the objective of selling quantity becomes paramount. To overcome this problem the designer can circumvent the manufacturers by producing the things themselves on a smaller scale. In the past, a maker would have designed, manufactured and sold his wares, and this method could be used as an exemplar for re-considering the way designers sell and disseminate products. This issue is currently being debated on the Twittersphere, under the discussion topic #milanuncut. Smaller scale production of objects would potentially result in a more sensitive and engaged design and manufacturing process, and designers can respond to local issues and develop a sense of local cultural heritage.

Use of Standardised Parts and Scales of Production.

Walker discusses using our current systems of mass-manufacture to our advantage by using standardised components in products. Although I propound the hand-making of things, I see value in Walker's suggestion. This would make fixing any broken parts much easier as they could be cheaply and, if properly designed into the object, easily fitted in replacement. A range of components could be created under the similar principles of the long-standing nut and bolt available from any hardware store. Wooden pegs, wedges and dowels, plastic clips, fixings and fittings could be designed and manufactured in a few sizes in the same standardised way that screws are today, and used to repair broken objects which have been designed using those same parts, and so those parts are accessible. Basic electronic components could be standardised and easily inserted into goods that require simply a new part rather than complete replacement. *Figure 8* shows a lamp that is made using standard 'twin and earth' copper wire, and has standard electric fittings and components that are easy to access and replace using basic tools. Walker discusses the idea of developing a 'service-oriented economy where products could be maintained, repaired and upgraded, and parts could be re-used and recycled.'[96] Indeed, there are many components available today from ubiquitous DIY stores that are reasonably cheap. I encourage experimentation with these components, and creative and intelligent use of them wherever possible.

Figure 8 – 'Rod' Desk Lamp by Sebastian Cox, made with standard copper wire and readily available components available from most hardware stores.

Play in the Creative Process.

Creativity and play are linked, and many original ideas can be developed in this rather free form of creative experimentation. Playing can provide much in terms of new ideas and is a thing that all designers should have to capacity to practice. It may be well served simply practicing a skill repeatedly to improve it; within repetitive processes new ideas can be formed, and within this type of play I encourage an attitude of craftsmanship. Sennett talks at length about the importance of play in craftsmanship, learning to channel our childhood skills of play into creative thought – 'The scalpel, a simple tool, was put to highly complex purposes in seventeenth-century scientific work, as was from the fifteenth-century the flat sided screwdriver; both began as basic tools. They can perform complex work because we have, as adults, learned to play with their possibilities rather than treat each tool as fit-for-purpose.'[97] In my own design research, I spent several months learning to rive, or cleave, green hazel; and I treated this repeated practice as a type of play. Riving is essentially the controlled splitting of unseasoned timber, and in learning this skill I developed ideas about forms, textures, and construction ideas as well as a huge respect for the material. *Figure 9* shows the amount of hazel it took to learn this skill. Play is something we naturally enjoy, and the motivation to play can therefore be sustained over a long period of time. The results can be not only pleasurable to achieve, but with the experimental nature of play can also be diverse and unexpected in their form.

Figure 9 – Learning to rive. The hazel used in learning the skill of cleaving.

Social Spaces.

All four of the books I have focused on agree that working within a community, or having a social aspect to work, can induce not only greater job satisfaction but a richer output. While sharing academic ideas is possible through papers, essays, and books; sharing and developing practical skills and techniques aren't entirely possible without the use of tacit knowledge, which is possible only through observing and doing. It is therefore important that designers seek social workplaces in order to debate, and perhaps look to develop new ideas by learning and adapting practical skills and knowledge. Sennett talks at length about the social implications of a workshop environment, citing Stradivari, Cellini and a typical Medieval Goldsmith in some depth. 'Workshops present and past have glued people together through work rituals, whether these be a shared cup of tea or the urban parade; thought mentoring, whether the formal surrogate parenting of medieval times or informal advising on the worksite; through face-to-face sharing of information.'[98] The social workshop should be encouraged and revived wherever possible, so ideas about good design and sustainability can be augmented.

* * *

There are many contemporary designers and makers already utilising traditional processes in their work, and more often than not these traditional ideas are popular with consumers. Simon Hasan is a current example, he produces furniture and objects using Cuir Bouilli, a medieval process which involves boiling leather to harden it. Hasan 'aims to imbue his work with a richness, heritage and texture borne from historical research, and a fascination for obscure crafts techniques.'[99] I don't wish to imply that Hasan does this for ecological reasons, but his artefacts are engaging, and would provoke longevity with their owners as

Figure 11 – Twist Bench by Simon Hasan. Made from boiled leather.

they serve as a platform upon which a relationship can be formed, with attributes such as cultural heritage, the opportunity for the development of patina, and use of natural materials etc. A recently published book entitled *Inspired Shapes. Contemporary Designs for Japan's Ancient Crafts*[100] documents a movement in Japan, in which contemporary designers are utilising traditional Japanese crafts in contemporary objects. Over 50 items ranging from bowls to brushes are carefully detailed in the book and show a deep cultural heritage, which must resonate strongly with the people of Japan.

Figure 12 – Spherical bowls by Sejiro Tsukamoto.

Figure 13 – Iron Kettles by Hiroyuki Nagashima.

A final example is a recent project that has received much exposure in London and elsewhere in the last few months. The *Branca* chair by Sam Hecht and Industrial Facility is a wooden chair that is mass-produced, but reflects a deep design process that involved making. In the video that accompanied the chair in

its exhibition, which starts with an upshot of a beech tree and close-up images of hand tools in a dusty workshop, Sam Hecht, speaking about the chair, says 'You don't feel as thought it was made by a computer.'[101] 'We started with blocks of wood, which we shaped and formed, and gradually refined it.'[102] The Branca chair is in my opinion a truly beautiful piece, it is reminiscent of traditional English country chairs, but with an evident contemporary form. Its available finishes allow the user to see and feel the grain underneath, and its construction shares this kind of honesty with visible joints. Although it is manufactured by machine, the making process used in the developmental stages is visible in the final product, which demonstrates that industrially produced pieces can have a human feel, leading to a potentially longer life with their owners.

Figure 14 – Branca Chair by Sam Hecht and Industrial Facility.

If we can continue and develop the work that designers like Hasan and Hecht are producing, and use the ideas presented here as guidelines, we can surely create a more engaging material culture.

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[88] ICON May 2010
[89] Walker, S. (2005) *Sustainable by Design,* pp 71
[90] Ruskin, J. Seven lamps of Architecture, pp 43
[91] Sennett, R. (2009) *The Craftsman,* pp 143-144
[92] http://designmuseum.org/design/dieter-rams
[93] Walker, S. (2005) *Sustainable by Design,* pp 117
[94] Margetts, M. (1991) *International Crafts,* pp 13.
[95] http://milanuncut.posterous.com/
[96] Walker, S. (2005) *Sustainable by Design,* pp 97
[97] Sennett, R. (2009) *The Craftsman,* pp 273
[98] ibid, pp 73
[99] www.simonhasan.com/about
[100] Koyama, O. (2005) *Inspired Shapes*.
[101] Sam Hecht, http://vimeo.com/20684417
[102] ibid.

Conclusion.

"Accuse not Nature, she hath done her part; Do though but thine."[103] – J. Milton.

I have presented arguments that suggest a reduction in material consumption by developing more engaging objects that have longevity, thus avoiding premature disposal. I want to refocus the conventional idea that traditional or ancient practices are primitive and of little value, and have sought to champion many of the attitudes of the past in a positive radical design approach. The traditional values vested in practices of craft and making should be upheld as a guide to a new way of thinking about objects, providing a more meaningful material culture which allows consumers to find greater satisfaction from their objects, and waste less.

As explained in the introduction, reducing consumption and the output of industry conflicts with the drive for profit of our current model of capitalism – there would be little motivation for large companies to genuinely reduce the amount that their consumers buy from them. The ideas presented in this essay can be implemented under the assumption that capitalism is going adapt to, or be replaced by, a more ecologically sound world system. This said, many of the principles can be introduced now to begin the necessary change in our aesthetic landscape, and indeed it could be that our material culture could be used as a vehicle for re-defining our world system. The problems of capitalism have been debated by academics and experts in this field for many years, as have alternative ideas for our global system[104] and these debates should be widened as much as possible.

When thinking about the economic problems of slowing down consumption, we can draw parallels with the food industry and the success of the *Slow Food*

Movement[105] since the 1980's, which has gained in popularity and had significant impacts on the industry with many consumers now choosing organic or locally grown food. There is a focus on quality in this particular movement, and similar principles can be drawn into the arguments here. Alasdair Fuad-Luke has written a paper entitled *Slow Theory*[106] in which he encourages a 'slow' movement in material things.

I understand that to make every object by hand is impractical and implausible if we wish for widely affordable objects, so I suggest we must use industry where appropriate to manufacture things. But even in these manufactured goods the designer should be engaged with his materials during the process of conception and design, and his understanding of handwork should be intrinsic to the make-up of that object, as demonstrated in the Branca chair.

For these ideas to be successfully implemented, and consumption rates to be slowed, consumers must actually desire the types of objects that are suggested here, and want to maintain and keep them. As has been explored in chapter three, consumers are taking an interest in hand-made things and we are entering an age where making and craftsmanship are becoming more recognised, and perhaps more valued by the consumer. The design industry must recognise this interest in craft and handwork and should exploit the benefits of having engagement with objects at that deeper level and reflect it in its products. The creative interpretation of the ideas presented in this essay becomes important, and designers must seek to make those products initially appealing, as well as appealing in the long-term. Most designers should have the capability to take the ideas presented here, adapt or improve them, and create products that continue the debate, and move towards a more sustainable future.

Although I have primarily focused on examining attitudes associated with traditional methods of making, looking more generally at attitudes of past practice can also provide a wealth of ideas that might begin to make a real difference. The approach of those such as Chief Seattle's people who view the earth as sacred, the bodger who carefully manages his coppice to ensure the next

year's crop of wood is straight and true, the goldsmith's workshop where social interaction allows a free exchange of tacit knowledge, or the stone age man who knaps a flint to make a hand-axe, can all be examined and emulated when considering ways to not only design better objects, but to develop a generally more harmonious way of life on this planet.

It was of course the necessity of survival that meant man wasted less, valued things more, and made things that lasted. In the developed world our species has discovered and developed more abundant sources of food, wealth and materials, and as a result we have enjoyed safer distance from day-to-day survival. However, this necessity may begin to present itself again with depleting resources, and we need to turn our creativity and ingenuity towards tackling it. If we can comfortably adopt the approach from the past that allowed a balance between humans and the planet, we might begin to see significant enough changes resulting in a genuinely sustainable existence.

For the designer seeking a more substantial, holistic, or philosophical approach to sustainable objects *Traditional as Radical* can become the prevailing mind-set.

If you wish to contribute to this debate, please do so on twitter using the trend topic #tradrad.

[103] Milton, John (1667) *Paradise Lost*.
[104] www.thersa.org
[105] www.slowfood.org.uk
[106] Fuad-Luke, A. *Slow Theory.*

Bibliography

Books:

Adamson, G. (2007) *Thinking Through Craft.* Oxford, Berg.

Birkeland, J. (2002) *Design for Sustainability: A Sourcebook of Integrated Ecological Solutions.* London, Earthscan Ltd.

Carnac, H. (2010) *Taking Time: Craft and the Slow Revolution.* Birmingham, Craftspace.

Cavanagh-Downs, Lewis, Gertsakis, Grant, Morelli, Sweatman. (2001) *Design + Environment: A Global Guide to Designing Greener Goods.* Sheffield, Greenleaf Publishing.

Chapman & Gant. (2007) *Designers, Visionaries, + Other Stories: A Collection of Sustainable Design Essays.* London, Earthscan.

Chapman, J. (2005) *Emotionally Durable Design: Objects Experiences and Empathy*. London, Earthscan.

Crawford, M. (2011) *The Case for Working With Your Hands.* London, Penguin.

Dormer, P. (1997) *The Culture of Craft.* Manchester University Press

Dunbar, Knight & Power. (1999) *The Evolution of Culture.* Edinburgh University Press.

Falasca-Zamponi, S. (2011) *Waste and Consumption: Capitalism, the Environment and the Life of Things.* Oxon, UK, Routledge.

Fuad-Luke, A. (2009) *The Eco-Design Handbook: A Complete Sourcebook For the Home and Office.* London, Thames & Hudson Ltd.

Greenhalgh, P. (2002) *The Persistence of Craft.* A & C Black Publishers Ltd.

Hickman, R. (2004) *Art Education 11-18: Meaning, Purpose, and Direction.* Continuum International Publishing Group Ltd.

Koyama, O. (2005) *Inspired Shapes – Contemporary Designs for Japan's Ancient Crafts*. Tokyo, Kodasha International Ltd.

Margetts, M. (1991) *International Crafts*. London, Thames & Hudson.

Marx, K, and Engels, F. (1977) *Manifesto of the Communist Party*. Moscow, Progress Publishers.

Miller, G. (2009) *Spent: Sex Evolution and the Secrets of Consumerism.* Viking Books.

Milton, J. (1667) *Paradise Lost*.

Morris, W. (1947) *On Art and Socialism.* London, John Lehmann Ltd.

Munari, B. (1966) *Design as Art*. London, Penguin.

Papanek, V. (1995) *The Green Imperative: Ecology and Ethics in Design and Architecture.* London, Thames and Hudson.

Pearl-McPhee, S. (2008) *Yarn Harlot.* Andrews McMeel.

Pevsner, N (1991) *Pioneers of Modern Design: From William Morris to Walter Gropius.* London, Penguin.

Proctor, R. (2009) *1000 New Eco Designs, and Where to Find them.* London, Laurence King Publishing Ltd.

Risatti, H. (2007) *A Theory of Craft: Function and Aesthetic Expression.* University of North Caroline Press.

Ruskin, J. (1890) *The Seven Lamps of Architecture*. London, George Allen.

Schama, S. (1996) *Landscape and Memory.* Fontana Press.

Sennett, R. (2009) *The Craftsman.* London, Penguin.

Strasser, S. (1999) *Waste and Want: A Social History of Trash.* New York, Holt Paperbacks.

Tabor, R. (1994) *Traditional Woodland Crafts.* London, B.T. Batsford Ltd.

Todd, P (2008) *The Arts and Crafts Companion.* London, Thames & Hudson Ltd

Walker, S. (2005) *Sustainable by Design, Explorations in Theory and Practice.* London, Earthscan

Warren, P. (2006) *British Native Trees, Their Past and Present Uses.* Wildeye, UK.

Papers/Articles:

Adamson, G. (2011) *Firm Following.* Crafts Magazine

ES Magazine. (2000) *Put your money where your mouth is.* Associated Newspapers Ltd. Evening Standard/ES Magazine,

Fuad-Luke, A. *Slow Theory: A Paradigm For Living Sustainably?*

ICON Magaine. (May 2010) *Is Design Playing With Your Emotions?* Issue 083

NSEAD (National Society for Education in Art and Design). *Design Education – Now You See It; Now You Don't.*

UNESCO (2005) *Secondary Education Reform. Towards a Convergence of Knowledge Acquisition and Skills Development.*

Wallerstein, I. (1997) *Ecology and Capitalist Costs of Production.*

Wallerstein, I. *The Ecology and the Economy: What is Rational?*

Websites:

www.chiefseattle.com/history/chiefseattle/speech

http://designmuseum.org/design/dieter-rams

www.diy.com/diy/youcandoit_classes/index.jsp

www.ipcc.ch

http://milanuncut.posterous.com/

www.pantheist.net/society/truth_of_chief_seattle.html

www.simonhasan.com/about

www.slowfood.org.uk

www.thersa.org

www.un.org/documents/ga/res/42/ares42-187.htm

http://vimeo.com/20684417

Appendix A.

Products of Silviculture Project Details.

The Products of Silviculture collection is an exploration into sustainable design through coppicing. Coppicing is an ancient method of woodland management in which trees are cut just above ground level and harvestable, straight-growing ‘rods’ re-sprout from the stump. The process is repeated every seven years or so to give a sustainable crop of usable wood.

Tree ready for coppicing.

Wood harvested close to the stump.

New shoots re-grow rapidly from the ‘stool’.

5-7 years later the wood is ready for harvesting again.

Coppicing provides an entirely renewable crop of hazel, and I harvest this material by hand with a team of volunteers from a wood located about 10miles from my workshop. This material is inherently sustainable in term of its renewability and its local, low impact harvesting. But I also found there were many other aspects of the traditions associated with this process that fed into the ethos of sustainability propounded in this essay. The lightweight nature of the material suggested a lightweight aesthetic for the collection; and the long, straight growth of the rods with their smooth, shiny bark encouraged a decision to leave the rods unprocessed in some products.

I immersed myself in the traditional processes associated with this craft, and attempted to draw the cultural heritage from the traditional bodger's wares into this contemporary collection. Through months of practicing cleaving and weaving, and playing with burning, boiling, sawing and bending I learned a lot about the timber, and with this understanding of its properties I developed my designs. All of the pieces will accommodate patina or wear, and aren't over-finished – just a coat of clear water-based lacquer to slightly protect the timber. I applied traditional furniture making techniques such dovetail, and mortise and tenon joints to give this collection structural strength and reflect the strong cultural heritage of furniture making present in the UK. The products that have their bark still will visibly change over time, as it smoothens with use. All of the products in this collection are made by hand or using small woodworking machines, and are developed and manufactured in a shared workshop, where ideas and knowledge can be exchanged between the makers.

* * *

‘Suent’ Superlight Chair

This chair combines a lightweight and unobtrusive aesthetic with surprising structural strength. It is very much designed as a reflection of the materials, which grow quickly and are therefore strong and light. The seat is made from cleft and woven hazel, which provides an interesting textural contrast and detailed aesthetic interest, and can be easily re-woven or replaced as it wears. The joints are visible, echoing Ruskin’s principles of *honesty* in construction; and the strength in the rear legs is provided by steam bending, a traditional woodworking process. The chair also comes in a range of colours, which are achieved naturally – beetroot juice, vinegar and rust, and charring.

‘Rod’ Desk Lamp

The shade of this lamp is made from hazel fibres, which are produced through rubbing a dull metal edge on the hazel. This process was discovered through play and experimentation and is a simple way to produce moulded shapes from hazel. The lamp is powered by a standard low voltage plug, which is connected to two standard 2.5mm copper cores that carry the 12volt current to an LED bulb. When the lampshade is positioned, it drops, simultaneously gripping the bent rod, connecting the lampshade to the copper cores, and illuminating the LED bulb. This simple method of adjustment does not require complex fittings that can break, and is a very simple principle. All other components are easily available online, and it takes is a standard MR16 Bulb.

‘Rod’ Standard Lamp

Again using standard components, this lamp takes a 230v supply and a common low-energy bulb. The hazel rod is steam bent into the arc shape in this piece, giving it an elegant shape. The shade is made of hazel shavings, and allows a warm glow rather than a directed spread of light. This piece is unobtrusive in its form, and displays great variety in its texture with the visible grain in the lampshade, the bark on the rod and the smooth steam bent feet.

‘Brish’ Hat Stand

This hat stand employs the same principle as the lamp; when an object is hung on the hooks they drop, gripping the rod. It is adjustable and can be sold flat-pack and it uses very little energy to manufacture. The rod contrasts with the simple steamed hooks and feet, providing aesthetic interest.

'Kerf' Coffee Table

In my research I developed a panel that was made up of sawn, or kerfed, rods, which were mortised and set onto dowels, without glue. The natural shrinkage in the wood as it dries grips the rods, and holds the panel together. This is a traditional process used by bodgers for assembling chairs, and I have adapted it to be used in these panels. I applied this originally to a chair, but found it was more appropriate in the flat surface of a coffee table. The texture of the bark in these panels is very appealing, and where possible I leave moss and lichen on the bark. The joints are visible and a large dovetail braces the panel into the rails, pulling the whole piece together.

This collection embodies my ethos of sustainability and is a visual representation of the ideas in this essay. For further details and images of these products, please go to my website – www.sebastiancox.co.uk